



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0846; Directorate Identifier 2012-CE-021-AD]

RIN 2120-AA64

Airworthiness Directives; Cessna Aircraft Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Cessna Aircraft Company Models 172R and 172S airplanes. This proposed AD was prompted by reports of chafed fuel return line assemblies, which were caused by the fuel return line assembly rubbing against the right steering tube assembly during full rudder pedal actuation. This proposed AD would require you to inspect the fuel return line assembly for chafing; replace the fuel return line assembly if chafing is found; inspect the clearance between the fuel return line assembly and both the right steering tube assembly and the airplane structure; and adjustment as necessary. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Cessna Aircraft Company, Customer service, P.O. Box 7706, Wichita, KS 67277; telephone: (316) 517-5800; fax: (316) 517-7271; Internet: <http://www.cessnasupport.com>. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Jeff Janusz, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 S. Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4148; fax: (316) 946-4107; email: jeff.janusz@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0846; Directorate Identifier 2012-CE-021-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

In January 2012, we issued AD 2012-02-02 (77 FR 6003, February 7, 2012) for certain Cessna Aircraft Company (Cessna) Models 172R and 172S airplanes. That AD required inspection of the fuel return line assembly for chafing; replacement of the fuel return line assembly if chafing is found; inspection of the clearance between the fuel return line assembly and both the right steering tube assembly and the airplane structure; and adjustment as necessary. That AD resulted from reports of chafed fuel return line assemblies, which were caused by the fuel return line assembly rubbing against the right steering tube assembly during full rudder pedal actuation. We issued that AD to detect and correct chafing of the fuel return line assembly, which could result in fuel leaking under the floor and fuel vapors entering the cabin. This condition could lead to fire under the floor or in the cabin area.

We were recently notified that the unsafe condition also applies to airplanes with an installed engine fuel return system modification kit.

Relevant Service Information

We reviewed Cessna Service Bulletin SB07-28-01, Revision 1, dated September 22, 2011. The service information describes the following procedures:

- Inspecting the fuel return line assembly;
- Replacing the fuel return line assembly if chafing is found; and
- Inspecting the clearance between the fuel return line assembly and both the

right steering tube assembly and the airplane structure, adjusting as necessary.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

This proposed AD will apply to only the Cessna Models 172R and 172S airplanes that have installed an engine fuel return system modification kit.

AD 2012-02-02 (77 FR 6003, February 7, 2012) will remain in effect for the airplanes without the modification kit.

Differences Between the Proposed AD and the Service Information

The service information permits tube damage up to a depth of 0.0035 inch. There is no known method to accurately measure the thickness damage on a tube. We propose to require replacement of the fuel return line assembly if any damage is found.

If no chafing is found in the inspection of the fuel return line assembly, the service information does not require inspection for clearance around the fuel return line assembly. We propose to require you to inspect the clearance between the fuel return line

assembly and both the right steering tube assembly and airplane structure if no chafing is found and if the fuel return line assembly requires replacing.

The service information does not specify a minimum clearance requirement between the fuel return line assembly and the right steering tube assembly, only that the fuel return line assembly does not touch either the right steering tube assembly or the airplane structure. We propose to require a minimum of 0.5 inch of clearance between the fuel return line assembly and the right steering tube assembly and require visible positive clearance between the fuel return line assembly and the airplane structure, during full rudder pedal actuation.

The serial numbers this proposed AD apply to are not included in the Effectivity of the service information. However, the procedures in the service information for inspection and replacement of the fuel return line assembly are still accurate for the serial numbers this proposed AD applies to.

The requirements of this proposed AD, if adopted as a final rule, would take precedence over the provisions in the service information.

Costs of Compliance

We estimate that this proposed AD affects 55 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of the fuel return line assembly for chafing and clearance	1 work-hour X \$85 per hour = \$85	Not applicable	\$85	\$4,675

We estimate the following costs to do any necessary replacements and adjustments that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement of the fuel return line assembly and adjustment of the clearance between the fuel return line assembly and both the steering tube assembly and the airplane structure	1 work-hour X \$85 per hour = \$85	\$123	\$208

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Cessna Aircraft Company: Docket No. FAA-2012-0846; Directorate Identifier 2012-CE-021-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the following Cessna Aircraft Company (Cessna) airplanes, certificated in any category:

(1) Model 172R, serial numbers (S/N) 17280001 through 17281187, that have incorporated Cessna Aircraft Company Service Bulletin SB04-28-03, dated August 30, 2004, and Engine Fuel Return System, Modification Kit MK172-28-01, dated August 30, 2004; and

(2) Model 172S, S/N 172S8001 through 172S9490, that have incorporated Cessna Aircraft Company Service Bulletin SB04-28-03, dated August 30, 2004, and Engine Fuel Return System, Modification Kit MK172-28-01; dated August 30, 2004.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 2820, Aircraft Fuel Distribution System.

(e) Unsafe Condition

This AD was prompted by reports of chafed fuel return line assemblies caused by the fuel return line assembly rubbing against the right steering tube assembly during full rudder pedal actuation. We are issuing this AD to correct the unsafe condition on these products.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspect the Fuel Return Line Assembly

At whichever of the following that occurs later, inspect the fuel return line assembly (Cessna part number (P/N) 0500118-49) for chafing following Cessna Service Bulletin SB07-28-01, Revision 1, dated September 22, 2011.

- (1) At the next annual inspection after the effective date of this AD; or
- (2) Within the next 100 hours time-in-service (TIS) after the effective date of this AD; or
- (3) Within the next 12 calendar months after the effective date of this AD.

(h) Replace the Fuel Line Assembly

If you find evidence of chafing of the fuel return line assembly (Cessna P/N 0500118-49) as a result of the inspection required by paragraph (g) of this AD, then before further flight, replace the fuel return line assembly (Cessna P/N 0500118-49) following Cessna Service Bulletin SB07-28-01, Revision 1, dated September 22, 2011.

(i) Inspect for a Minimum Clearance Between Certain Parts

After any inspection required by paragraph (g) of this AD and no chafing of the fuel return line assembly (Cessna P/N 0500118-49) is found or after replacement of the fuel return line assembly (Cessna P/N 0500118-49) required by paragraph (h) of this AD, before further flight, inspect for a minimum clearance between the following parts throughout the range of copilot pedal travel:

- (1) A minimum clearance of 0.5 inch between the fuel return line assembly (Cessna P/N 0500118-49) and the right steering tube assembly (Cessna P/N MC0543022-2C); and
- (2) Visible positive clearance between the fuel return line assembly (Cessna P/N 0500118-49) and the airplane structure.

(j) Adjust Clearance for Fuel Return Line Assembly

If the clearance between the fuel return line assembly and the right steering tube assembly and the clearance between the fuel return line assembly and the aircraft structure do not meet the minimums as specified in paragraphs (i)(1) and (i)(2) of this AD, before further flight, adjust the clearances to meet the required minimums following the

Instructions paragraph of Cessna Service Bulletin SB07-28-01, Revision 1, dated September 22, 2011.

(k) Engine Fuel Return System Modification

Do not install Cessna Aircraft Company Service Bulletin SB 04-28-03 and Engine Fuel Return System Modification Kit MK 172-28-01, both dated August 30, 2004, without performing the actions in this AD.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(m) Related Information

(1) For more information about this AD, contact Jeff Janusz, Aerospace Engineer, Wichita ACO, FAA, 1801 S. Airport Road, Room 100, Wichita, Kansas 67209; phone: (316) 946-4148; fax: (316) 946-4107; email: jeff.janusz@faa.gov.

(2) For service information identified in this AD, contact Cessna Aircraft Company, Customer service, P.O. Box 7706, Wichita, KS 67277; telephone: (316) 517-5800; fax: (316) 517-7271; Internet: <http://www.cessnasupport.com>. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on August 14, 2012.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service.

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